

REMARKS

In the Office Action dated February 7, 2007, claims 11-40 were presented for examination. The Drawings were objected to as containing elements that require labeling. Claims 11-16, 18-23, 25-30, 32-33, 35-37, and 39-40 were rejected under 35 U.S.C. §112, first paragraph. Claims 26-32 and 40 were rejected under 35 U.S.C. §101. Claims 11, 12, 17-20, 24-27, 31-38, and 40 were rejected under 35 U.S.C. §103(a) as being unpatentable over *Black et al.*, U.S. Patent No. 5, 878,056, in view of *Tawil*, U.S. Patent No. 6,421,723.

The following remarks are provided in support of the pending claims and responsive to the Office Action of February 7, 2007 for the pending application.

I. Objection to the Drawings

In the Office Action dated February 7, 2007, the Examiner objected to the Drawing Figures as containing identified boxes that were not labeled. More specifically, the Examiner indicated that boxes identified by number 102 and 110-122 require proper labeling. Applicant has amended Figure 1 to label the items identified by the Examiner. Figure 1 has been titled as a replacement sheet. The amendment to Fig. 1 does not add any new subject matter to the pending application. Accordingly, Applicant respectfully requests that the Examiner remove the objection to the Drawings.

II. Rejection Under 35 U.S.C. §112, first paragraph

In the Office Action dated February 7, 2007, the Examiner rejected claims 11-16, 18-23, 25-30, 32-33, 35-37, and 39-40 under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. More specifically, the Examiner has rejected the identified claims as containing subject matter that was not described in the specification in a manner to reasonably convey the invention to one skilled in the art at the time the application was filed. The Examiner identified the term “transactional” as not being properly defined in the specification. Applicant has amended claims 11, 19, 26, 33, 37, and 40 to replace the term “transactional” with the term “non-persistent”. Support for the term “non-persistent” can be found in the specification on page 6, lines 22-26. Accordingly, in view of the amendments to the

claims, the Applicant respectfully requests that the Examiner remove the rejection of claims 11-16, 18-23, 25-30, 32-33, 35-37, and 39-40 under 35 U.S.C. §112, first paragraph.

III. Rejection Under 35 U.S.C. §112, second paragraph

In the Office Action dated February 7, 2007, the Examiner rejected claim 12 under 35 U.S.C. §112, second paragraph as failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. More specifically, the Examiner has identified the words “the queue” as being indefinite. Applicant has amended claim 12 to specify that the queue in question is a “message queue” as identified in independent claim 11. Accordingly, Applicant respectfully requests that the Examiner remove the rejection of claim 12 under 35 U.S.C. §112, second paragraph.

IV. Rejection under 35 U.S.C. §101

In the Office Action dated February 7, 2007, the Examiner rejected claims 26-32 and 40 under 35 U.S.C. §101 as containing language directed to non-statutory subject matter.

Claims 26-32 and 40 are directed to an article that is within the technological arts and is directed to statutory subject matter. The Examiner alleges that the “computer readable signal bearing medium” may encompass an intangible embodiment. Claims 26-32 and 40 are directed to “means for elements” and relate to a computer system. The functions recited in claims 26-32 and 40 cannot read on software only because the functions can only be performed in cooperation with the computer system. Applicant further submits that computer programs embodied in computer readable media have been held statutory and thus, this rejection is in error. “When functionally descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of the technology permits the function of the descriptive material to be realized.”¹ As an example, in *In re Lowry*, 32 F.3d 1579, 1583-1584, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994), a

¹MPEP §2106.01

claim to a data structure stored on a computer readable medium that increases computer efficiency was held to be statutory.

There is no requirement in the MPEP for the media to be tangible for a “computer readable medium” or “computer useable medium” claim to be statutory. In the case of a carrier wave or transmission medium, the use of a computer is still required in order for the function of the descriptive material to be realized. This, even though the medium itself may not be tangible, the result is still a computer readable media with which technology permits the function of the descriptive material on the computer readable media to be realized. A useful, concrete, and tangible result is obtained even if the media itself may not be tangible. Accordingly, Applicant respectfully requests removal of this rejection under 35 U.S.C. §101 and allowance of claims 26-32 and 40.

V. Rejection of Claims 11, 12, 17-20, 24-27, 31-38, and 40 under 35 U.S.C. §103(a)

In the Official Action of February 7, 2007, the Examiner rejected claims 11, 12, 17-20, 24-27, 31-38, and 40 under 35 U.S.C. §103(a) as allegedly being unpatentable over U.S. Patent No. 5,878,056 to *Black et al.* (hereinafter *Black*) in view of U.S. Patent No. 6,421,723 to *Tawil* (hereinafter *Tawil*).

Black discloses a computer system that supports message transfer between nodes of a communication network. More specifically, *Black* discloses communication between application program through message queues to facilitate asynchronous communication. See Col. 9, lines 25-27.

Tawil discloses a computer system with a storage area network. Fig. 1 is a block diagram of the layout of the computer system. As shown, there are two initiators and two targets in communication with the storage area network. The initiators may be in the form of work stations or servers, and the targets may be in the form of a storage device. The storage area network of *Tawil* “interfaces with plural initiators 14 and 16 and plural targets 18 and 20.” Col. 3, lines 59-60. Each of the targets has a command queue 22, 26 that limits the quantity of messages the

queue may process or hold for processing at a given time. However, the target of *Tawil* is not the storage area network and is not controlled by the storage area network. Rather, in *Tawil*, both the initiator and the target are devices that interface with components of the storage area network.

As noted by the Examiner, *Black* “does not explicitly disclose a computer system comprising a storage area network.”² The Examiner combines *Black* with *Tawil* since *Tawil* teaches a storage area network. However, *Tawil* does not teach a storage area network controller to control a message queue. Rather, in *Tawil* each node 14, 16, in communication with the storage area network, has an ID engine 30, 34, respectively, and determines the quantity of nodes interfaced with the storage area network. See Col. 5, lines 33-35. Based on the quantity of nodes interfaced with the storage area network a queue depth engine of the initiator node may adjust the queue depth for each initiator. See Col. 5, lines 46-47. Accordingly, it is the initiator in *Tawil* that controls the message queue not the storage area network controller.

Tawil does not teach a storage area network controller that controls a message queue, as claimed by Applicant. See claims 11 and 33. In fact, *Tawil* does not make a single mention of a storage area network controller. In *Tawil*, the control of the message queue is passed to a node in communication with the server. In contrast, Applicant is claiming that the control of the transactional management of messages and associated queues are removed from the individual server, *i.e.* initiators as termed in *Tawil*, and are stored at the network level. The control and management of messages at the network level eliminates issues associated with failure of server and any messages stored thereon.

With respect to claims 19 and 26, Applicant positively recites a message queue in a storage area network and a storage area network controller to control one or more messages. *Tawil* does not teach a queue in the storage area network, and furthermore does not teach a controller in the storage area network to control one or more messages. Rather, *Tawil* teaches a queue in a node in communication with the storage area network. See Fig. 2. Similarly, with

²See Office Action page 6.

respect to claims 37 and 40, Applicant positively recites a queue in a controller of a storage area network. As noted above, *Tawil* does not teach a storage area network controller. Accordingly, as noted above, the storage area network of *Tawil* does not teach a storage area network controller associated with communication of messages across the network.

To establish a rejection under 35 U.S.C. §103(a), all the claim limitations must be taught or suggested in the prior art.³ If the prior art references do not teach or suggest every claim limitation of the Applicant's invention, then they do not meet every requirement under 35 U.S.C. §103(a) and are not sufficient to uphold a rejection under 35 U.S.C. §103(a).⁴ In the present case, as stated above, the major difference between Applicant's invention, *Tawil*, and *Black*, is that Applicant is utilizing the controller of a storage area network to remove storage and management of messages from individual server and to place such responsibility at the network level. Therefore, because *Black* does not teach or suggest utilizing a storage area network and *Tawil* does not teach utilizing a storage area network controller for management of messages and messaging techniques in the network, these prior art references do not teach every element of Applicant's claimed invention. Accordingly, the *Black* and *Tawil* patents, when combined are not sufficient to uphold a rejection under 35 U.S.C. §103(a).

It is clear that the Examiner is combining the message passing techniques of *Black* with the storage area network of *Tawil*. However, even the storage area network of *Tawil* does not teach the elements of the message passing techniques of Applicant. The Examiner has not established a prima facie case of obviousness with respect to the aforesaid set of claims, since the combination of references comes short of teaching each of the elements claimed by Applicant. It is respectfully suggested that the Examiner's rejection under 35 U.S.C. §103(a) which does not contain teachings of the pending claims is without merit and must be withdrawn. Accordingly, Applicant respectfully contends that the combination of *Black et al.* with *Tawil* does not meet the

³ MPEP §2143.03 (Citing *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974)).

⁴ See MPEP §2143.

standard set by the CAFC's interpretation of 35 U.S.C. §103(a), and respectfully requests that the Examiner remove the rejection and direct allowance of claims 11-40.

VI. Conclusion

Based upon the above remarks, Applicant respectfully requests consideration of the claims. It is submitted that all of the claims in the application are in condition for allowance and such action is respectfully requested. Should any questions arise in connection with this application or should the Examiner believe that a telephone conference with the undersigned would be helpful in resolving any remaining issues pertaining to this application, the undersigned respectfully requests that she be contacted at the number indicated below.

For the reasons outlined above, an allowance of this application is respectfully requested.

Respectfully submitted,

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